This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (original) A method of driving the coil of an electrohydraulic valve with a ~~PWM~~ pulse width modulator drive, comprising:

transmitting a feedback signal to a digitizing device that is a
    finite impulse response filter that is electrically
    connected to the electrohydraulic valve;
sampling the feedback signal within the digitizing device to
    create a plurality of signal samples within a pulse width
    modulator cycle;
transmitting the plurality of samples to an accumulator;
averaging the plurality of samples within the accumulator to
    create an average value; and
transmitting the average value to a closed loop control
    algorithm that generates a pulse width signal to drive the
    coil of the electrohydraulic valve.

2.   (original) The method of claim 1 wherein the digitizing device is an AtoD converter.

3.   (original) The method of claim 1 wherein the digitizing device is a DSP.

4.   (original) The method of claim 1 wherein the digitizing device is a micro controller.

5.   (original) The method of claim 1 wherein the algorithm is a PI algorithm.

6.   (original) The method of claim 1 wherein the algorithm is a PID algorithm.

7.   (original) The method of claim 1 wherein the accumulator resets when the algorithm sends the pulse width signal to the coil of the electrohydraulic valve.

8.   (original) A method of driving a pulse width modulator comprising:
transmitting a feedback signal from the pulse width modulator to
       a finite impulse response filter;
calculating an average current in the signal within a pulse
       width modulator cycle with the finite impulse response
       filter; and
generating a pulse width signal in response to the average
       current in the signal via an algorithm.

9.   (original) A method of driving the electric coil of a machine with a pulse width modulator comprising:
transmitting a feedback signal to a digitizing device that is a
       finite impulse response filter that is electrically
       connected to the electric coil of the machine;
calculating the amount of average current in the coil within a
       pulse width modulator cycle with the digitizing device;
transmitting the average current amount to an algorithm;
generating a pulse width signal in response to the average
       current in the coil with the algorithm.